40. The process according to claim 29, wherein the temperature is increased to a range between 700° C and 1200° C.

41. The process according to claim 29, wherein the ceramic powders comprise closely fractionated abrasive powders.---

REMARKS

Entry of the foregoing amendment is respectfully requested prior to examination of the application.

Applicants respectfully note that, upon entry of the present amendment, claims 1-18 will be canceled without prejudice or disclaimer of the subject matter recited therein, and claims 19-41 will be added. Of the newly-added claims, claims 19 and 29 are independent.

Applicants further note that the present amendment is being presented to even more clearly recite Applicants' invention by placing the claimed subject matter even more in accordance with standard U.S. practice and idiomatic English, and no estoppel should be deemed attached thereto.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed number.

Respectfully submitted,
Jörg ADLER et al.

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APPENDIX

MARKED-UP COPY OF CHANGES TO SPECIFICATION

Marked up copy of replacement paragraph, at page 1, line 22 to page 2, line 4:

Normally, ceramic membranes are made of a multi-layer system of porous ceramic whose individual layers have different pore widths. The actual filtering layer is the thinnest and most micro-porous of the system. It is situated on a coarsely porous and thicker layer, and this in turn on the next layer, etc. The coarsely porous material forms the support, which simultaneously assumes the mechanic carrier function of the overall system and also frequently forms the filtrate collection structures. The intermediate layers between support and filtering layer serve to reduce the interstices between the coarse particles of the support and the support of the finer particles of the subsequent layer. Depending upon the desired size of separation, at least one layer, but most of the time at least two layers are currently applied on the support for micro-filtration membranes (size of separation 1000 nm to 200 nm), at least two, but for the most part more than three layers are applied on the support for ultra-filtration membranes (size of separation 100 nm to 10 nm) and more than three layers are applied on the support for nano-filtration membranes (size of separation less than 10 nm).

Marked up copy of replacement paragraph, at page 2, lines 22 to 25:

However, in this case, layers of different ceramics that have different properties (such as insulating and conductive) are sintered with one another with the goal of achieving the highest possible density of the layers (for example, [US 3978248, US 5683528] U.S. Patent Nos. 3,978,248 and 5,683,528).

Marked up copy of replacement paragraph, at page 3, lines 19 to 25:

According to WO 96/30207, a process is known in which the shrinkage adaptation of a component of a multi-layer system is achieved by the use of nanoscale powders. In the case of coarsely porous filters, coarse powders are used and the nanoscale powder is added to the mixture to promote its fusion, while, in the case of fine powders, the nanoscale powder itself is used and sintering inhibitors are added in order to prevent fusion that is too strong. Agglomerates of the nanoscale powder are also used as coarse powder.

Marked up copy of replacement paragraph, at page 5, lines 14-26:

The ceramic multi-layer filters in accordance with the invention are manufactured in accordance with the invention by the sintering temperature and material system being selected in such a manner that the powders used remain passive, i.e., that their size, morphology, and composition/crystal structure [does] do not or only negligibly alters. The bonding of the particles takes place during sintering via an additional liquid phase, which encases the powder particles and connects on the contact surfaces. This liquid phase must be coordinated with the sintering temperature and the material system in such a way that

- The liquid phase has a low viscosity with the selected sintering temperature and good wetting of the powder takes place.
- The liquid phase enters into no reactions or only slight reactions with the powder.
- The liquid phase itself has an increased surface tension in order to avoid being absorbed into the capillary system of the pores.